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(54) **ACCOMMODATING INTRAOCULAR LENSES**

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(58) **Field of Classification Search**

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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,111,995 A	9/1978	Nelson
4,251,887 A	2/1981	Anis
4,253,199 A	3/1981	Banko
4,254,509 A	3/1981	Tennant

(Continued)

FOREIGN PATENT DOCUMENTS

CN	101277659 A	10/2008
EP	0898972 A2	3/1999

(Continued)

OTHER PUBLICATIONS

Matthews, Gregory V.; U.S. Appl. No. 13/427,617 entitled "Intraocular Lens Loading Systems and Methods of Use," filed Mar. 22, 2012.

(Continued)

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(57) **ABSTRACT**

Accommodating intraocular lenses containing a flowable media and their methods of accommodation.

30 Claims, 15 Drawing Sheets

